UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/576,695	04/21/2006	Toshihisa Nakano	2006_0547A	3447

52349   7590   03/11/2008
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ART UNIT	PAPER NUMBER
4134	

MAIL DATE	DELIVERY MODE
03/11/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/576,695	NAKANO ET AL.
Office Action Summary	Examiner	Art Unit	
	MARCOS BATISTA	4134	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>21 April 2006</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-17</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-17</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>04/21/2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>04/21/2006</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

> When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims **16 and 17 are** rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter as follows. Claims **16 and 17** define **a**

computer readable program, embodying functional descriptive material. However, the

claim does not define a computer-readable medium or memory and is thus non-

statutory for that reason (i.e., "When functional descriptive material is recorded on some

computer-readable medium it becomes structurally and functionally interrelated to the

medium and will be statutory in most cases since use of technology permits the function

of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of

the presently claimed **a computer readable program** can range from paper on which

the program is written, to a program simply contemplated and memorized by a person.

Specification Objections

2.   This application does not contain an abstract of the disclosure as required

by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 1-8, 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Ritter et al. (US 7114179 B1), hereafter "Ritter," in view of Suga et al. (US

6321067 B1), hereafter "Suga."

        Consider claim 1, Ritter discloses a radio communication system (fig. 1) including

a server device **31** and a mobile terminal device **1** to which a memory card **2** is

attached, the server device, the mobile terminal device, and the memory card

performing communication including a first procedure (boot memory module) and a

second procedure (communicate with server device) (see fig. 1, col. 8 lines 20-29).

Ritter also teaches the server device **31** transmitting a start request to the mobile

terminal device, the start request requiring the communication to be started (see col. 8

lines 55-56). Ritter further teaches the mobile terminal device **1** comprising: a receiving

unit operable to receive the start request from the server device (see col. 9 lines 27-34).

Ritter also teaches a first communication unit **1** operable to, when the receiving unit

receives the start request, perform the first procedure with the server device (see col. 8

lines 55-61).

  Ritter discloses a communication system comprising a server device **31**, a

communication terminal **1**, which a memory card **2** is attached. The mobile

communication device, the attached memory card and the server device communicate

among each other constituting the communication system (fig. 1). Ritter, however, does

not particular refer to an activating unit operable to activate the memory card, when the

receiving unit receives the start request or a boot unit operable to perform a boot

operation when the memory card is activated, the boot operation being performed

concurrently with the first procedure between the first communication unit and the

server device or a second communication unit operable to, when the boot unit

completes the boot operation, perform the second procedure with the server device.

Suga teaches an activating unit **25** operable to activate the memory card, when the

receiving unit **26** receives the start request (see fig 12, col. 13 lines 66-67, col. 14 lines

1-13 – when the IC card **2** receives power by induction, the integrated circuit **61**

initializes and performs communication with server device **31**). Suga also teaches a

boot unit **61** operable to perform a boot operation when the memory card is activated, the boot operation being performed concurrently with the first procedure between the first communication unit and the server device; and a second communication unit operable to, when the boot unit completes the boot operation, perform the second procedure with the server device (see fig. 12 #2, col. 13 lines 66-67, col. 14 lines 1-13 – where Suga teaches providing power to the IC chip and therefore, causing the entire chip to boot up).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ritter and have it include an activating unit operable to activate the memory card, when the receiving unit receives the start request and a boot unit operable to perform a boot operation when the memory card is activated, the boot operation being performed concurrently with the first procedure between the first communication unit and the server device; and a second communication unit operable to, when the boot unit completes the boot operation, perform the second procedure with the server device, as taught by Ritter. The motivation would have been in order to make the IC card possible to function as a non-contact communication ticket or railway ticket (see fig 12, col. 13 lines 66-67, col. 14 lines 1-13).

Consider claim 2, Ritter discloses a mobile terminal device to which a memory card is attached, the mobile terminal device and a server device constituting a radio communication system, the mobile terminal device comprising (see fig. 1, col. 8 lines 20-29). Ritter also teaches a receiving unit operable to receive a start request from the server device, the start request requiring the mobile terminal device, the server device, and the memory card to start communication including a plurality of procedures (see col. 8 lines 55-67). Ritter also teaches a communication unit operable to, when the receiving unit receives the start request, perform an initial procedure of the plurality of procedures with the server device (see col. 8 lines 55-61). Ritter does not particular refer to an activating unit operable to activate the memory card, when the receiving unit receives the start request. Suga teaches an activating unit operable to activate the memory card, when the receiving unit receives the start request (see col. 13 lines 66-67, col. 14 lines 1-13).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ritter and have it include an activating unit operable to activate the memory card, when the receiving unit receives the start, as taught by Suga. The motivation would have been in order to make the IC card possible to function as a non-contact communication ticket or railway ticket (see fig 12, col. 13 lines 66-67, col. 14 lines 1-13).

Consider claim 3, Ritter as modified by Suga teaches claim 2. Suga also teaches wherein when the receiving unit receives **26** the start request, the activating unit **25**

supplies power to the memory card (see fig 12, col. 13 lines 66-67, col. 14 lines 1-13).

The motivation would have been in order to make the IC card possible to function as a

non-contact communication ticket or railway ticket (see fig 12, col. 13 lines 66-67, col.

14 lines 1-13 when the IC card **2** receives power by induction, the integrated circuit **61**

initializes and performs communication with server device **31**).

Consider claim 4, Ritter as modified by Suga teaches claim 2. Suga also teaches

wherein when the communication is completed, the activating unit stops supplying

power to the memory card (see col. 16 lines 50-63 – Power to the IC card is supplied

only when the card is in the proximity of the access-controlled server device **31**. As the

distance increase between the access-controlled server device **31** and the IC card **2**,

the supply of power stops and the communication between the IC card **2** and the server

device **31** also stops). The motivation would have been in order to make the IC card

possible to function as a non-contact communication ticket or railway ticket (see fig 12,

col. 13 lines 66-67, col. 14 lines 1-13).

Consider claim 5, Ritter as modified by Suga teaches claim 2. Ritter also teaches

wherein the communication unit notifies the memory card of information obtained by

performing the initial procedure (see col. 9 lines 5-22).

Consider claim 6, Ritter as modified by Suga teaches claim 2. Suga also teaches

wherein before the receiving unit receives the start request, the activating unit supplies

power to the memory card, and stops supplying power on reception of an instruction by the communication unit, and before the receiving unit receives the start request and while the activating unit is supplying power to the memory card, the communication unit obtains information necessary to perform the initial procedure, from the memory card, and then instructs the activating unit to stop supplying power to the memory card (see col. 7 lines 6-13, col. 16 lines 50-63). The motivation would have been in order to make the IC card possible to function as a non-contact communication ticket or railway ticket (see fig 12, col. 13 lines 66-67, col. 14 lines 1-13 - Power to the IC card is supplied only when the card is in the proximity of the access-controlled server device **31**. As the distance increase between the access-controlled server device **31** and the IC card **2**, the supply of power stops and the communication between the IC card **2** and the server device **31** also stops).

Consider claim 7, Ritter as modified by Suga teaches claim 2. Ritter also teaches wherein before the receiving unit receives the start request and while the activating unit is supplying power to the memory card, the communication unit performs authentication with the memory card (see col. 4 lines 13-18 – authentication is performed while the system is powered). Ritter further teaches if the authentication is successful, the communication unit obtains, from the memory card, the information necessary to perform the initial procedure, and then instructs the activating unit to stop supplying power (see col. 4 lines 22-27).

Consider claim 8, Ritter as modified by Suga teaches claim 2. Ritter also teaches wherein the server device is an automatic ticket gate installed at a train station (see col. 4 lines 52-55 – where Ritter teaches that the communication system can be used in the public transportation; a train station). Ritter also teaches and the communication is related to a fare adjustment operation (see col. 3 lines 47-55 – where Ritter teaches that ticket is being deducted from the memory card; fare adjustment).

Consider claim 10, Ritter discloses a receiving unit operable to receive a start request from the server device, the start request requiring the mobile terminal device, the module, and the server device to start communication including a first procedure and a second procedure (see fig. 1, col. 8 lines 20-29). Ritter also teaches a first communication unit operable to, when the receiving unit receives the start request, perform the first procedure with the server device (see col. 8 lines 55-61). Ritter does not particular refer to a mobile terminal device that has a module built-in, the mobile terminal device and a server device constituting a radio communication system or an activating unit operable to activate the module, when the receiving unit receives the start request or the module comprising: a boot unit operable to, when the module is activated, perform a boot operation, the boot operation being performed concurrently with the first procedure between the first communication unit and the server device or a second communication unit operable to, when the boot unit completes the boot operation, perform the second procedure with the server device. Suga teaches a mobile terminal device that has a module built-in, the mobile terminal device and a server

device constituting a radio communication system (see fig 2, col. 9 lines 55-56 – where Suga teaches an IC card that has a built in module). Suga also teaches an activating unit operable to activate the module, when the receiving unit receives the start request (see col. 13 lines 66-67, col. 14 lines 1-13). Suga further teaches the module comprising: a boot unit operable to, when the module is activated, perform a boot operation, the boot operation being performed concurrently with the first procedure between the first communication unit and the server device (see col. 13 lines 66-67, col. 14 lines 1-13 - where Suga teaches providing power to the IC chip and therefore, causing the entire chip to boot up). Suga also teaches a second communication unit operable to, when the boot unit completes the boot operation, perform the second procedure with the server device (see col. 13 lines 66-67, col. 14 lines 1-13).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ritter and have it include a mobile terminal device that has a module built-in, the mobile terminal device and a server device constituting a radio communication system and an activating unit operable to activate the module, when the receiving unit receives the start request and the module comprising: a boot unit operable to, when the module is activated, perform a boot operation, the boot operation being performed concurrently with the first procedure between the first communication unit and the server device and teaches a second communication unit operable to, when the boot unit completes the boot operation, perform the second procedure with the server device, as taught by Suga. The

motivation would have been in order to make the IC card possible to function as a non-

contact communication ticket or railway ticket (see fig 12, col. 13 lines 66-67, col. 14

lines 1-13).

Consider claim 11, Ritter as modified by Suga teaches claim 10. Ritter also

teaches wherein the second procedure by the second communication unit includes

authentication (see col. 4 liens 13-18).

Consider claim 12, Ritter as modified by Suga teaches claim 10. Suga also

teaches wherein the module is an LSI (see fig. 2, col. 9 lines 55-56 – where Suga

teaches an integrated chip of large scale integration). The motivation would have been

in order to make the IC card possible to function as a non-contact communication ticket

or railway ticket (see fig 12, col. 13 lines 66-67, col. 14 lines 1-13).

Consider claim 13, Ritter discloses a radio communication system (fig. 1)

including a server device **31** and a mobile terminal device **1** to which a memory card **2** is

attached, the server device, the mobile terminal device, and the memory card

performing communication including a first procedure (boot memory module) and a

second procedure (communicate with server device) (see fig. 1, col. 8 lines 20-29).

Ritter also teaches the server device **31** transmitting a start request to the mobile

terminal device, the start request requiring the communication to be started (see col. 8

lines 55-56). Ritter further teaches the mobile terminal device **1** comprising: a receiving

unit operable to receive the start request from the server device (see col. 9 lines 27-34).

Ritter also teaches a first communication unit **1** operable to, when the receiving unit

receives the start request, perform the first procedure with the server device (see col. 8

lines 55-61).

Consider claim 14, Ritter discloses a radio communication system (fig. 1)

including a server device **31** and a mobile terminal device **1** to which a memory card **2** is

attached, the server device, the mobile terminal device, and the memory card

performing communication including a first procedure (boot memory module) and a

second procedure (communicate with server device) (see fig. 1, col. 8 lines 20-29).

Ritter also teaches the server device **31** transmitting a start request to the mobile

terminal device, the start request requiring the communication to be started (see col. 8

lines 55-56). Ritter further teaches the mobile terminal device **1** comprising: a receiving

unit operable to receive the start request from the server device (see col. 9 lines 27-34).

Ritter also teaches a first communication unit **1** operable to, when the receiving unit

receives the start request, perform the first procedure with the server device (see col. 8

lines 55-61). Suga teaches an activating unit **25** operable to activate the memory card,

when the receiving unit **26** receives the start request (see fig 12, col. 13 lines 66-67, col.

14 lines 1-13 – when the IC card **2** receives power by induction, the integrated circuit **61**

initializes and performs communication with server device **31**). Suga also teaches a

boot unit **61** operable to perform a boot operation when the memory card is activated,

the boot operation being performed concurrently with the first procedure between the

first communication unit and the server device; and a second communication unit

operable to, when the boot unit completes the boot operation, perform the second

procedure with the server device (see fig. 12 #2, col. 13 lines 66-67, col. 14 lines 1-13 –

where Suga teaches providing power to the IC chip and therefore, causing the entire

chip to boot up). The motivation would have been in order to make the IC card possible

to function as a non-contact communication ticket or railway ticket (see fig 12, col. 13

lines 66-67, col. 14 lines 1-13).

 Consider claim 15, Ritter as modified by Suga teaches claim 14. Ritter

also teaches wherein the second procedure by the second communication unit

includes authentication (see col. 4 liens 13-18).

 Consider claim 16, Ritter discloses a computer program applied to a mobile

communication terminal to perform the following steps: receiving a start request

from the server device, the start request requiring the mobile terminal device, the server

device, and the memory card to start communication including a plurality of procedures;

and performing an initial procedure of the plurality of procedures between the server

device and the mobile terminal device, when the start request is received (see col. 6

lines 4-15 and lines 65-67, col. 7 lines 1-4). Ritter however, does not particular refer to a

computer program to perform the step of activating the memory card, when the start

request is received. Suga teaches a computer program to perform the step of activating

the memory card, when the start request is received (see col. 13 lines 41-51).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ritter and have it include a computer program to perform the step of activating the memory card, when the start request is received, as taught by Suga. The motivation would have been in order to make the IC card possible to function as a non-contact communication ticket or railway ticket (see fig 12, col. 13 lines 66-67, col. 14 lines 1-13).

Consider claim 17, Ritter discloses a computer program applied to a chip card (memory card) to perform the following steps: receiving a start request from the server device, the start request requiring the mobile terminal device, the server device, and the memory card to start communication including a plurality of procedures; and performing an initial procedure of the plurality of procedures between the server device and the mobile terminal device, when the start request is received (see col. 6 lines 4-15 and lines 65-67, col. 7 lines 1-4). Ritter however, does not particular refer to a computer program to perform the step of activating the memory card, when the start request is received. Suga teaches a computer program to perform the step of activating the memory card, when the start request is received (see col. 13 lines 41-51).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Ritter and have it include a computer program to perform the step of activating the memory card, when the start request is received, as taught by Suga. The motivation would have been in order to

make the IC card possible to function as a non-contact communication ticket or railway

ticket (see fig 12, col. 13 lines 66-67, col. 14 lines 1-13).

5.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ritter et

al. (US 7114179 B1), hereafter "Ritter," in view of Suga et al. (US 6321067 B1),

hereafter "Suga," further in view of Heinonen et al. (US 5887266 A), hereafter

"Heinonen."

        Consider claim 9, Ritter as modified by Suga teaches claim 2. But Ritter does not

particular refer to wherein the server device is a cash register installed at a shop, and

the communication is related to a payment for a purchase made at the shop. Heinonen

teaches wherein the server device is a cash register installed at a shop, and the

communication is related to a payment for a purchase made at the shop (see fig 6, col.

10 lines 66-67, col. 11 lines 1-3).

        It would have been obvious to a person of ordinary skill in the art at the time the

invention was made to modify the invention of Ritter and have it include wherein the

server device is a cash register installed at a shop, and the communication is related to

a payment for a purchase made at the shop, as taught by Heinonen. The motivation

would have been in order to provide a faster and easier payment method (see fig 6, col.

10 lines 66-67, col. 11 lines 1-3).

Conclusion

6.   Any inquiry concerning this communication or earlier communications from the
Examiner should be directed to Marcos Batista, whose telephone number is (571) 270-
5209. The Examiner can normally be reached on Monday-Thursday from 8:00am to
5:00pm.

        If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's
supervisor, Lun-Yi Lao can be reached at (571) 272-7671. The fax phone number for
the organization where this application or proceeding is assigned is (571) 273-
8300.

        Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for published
applications may be obtained from either Private PAIR or Public PAIR. Status
information for unpublished applications is available through Private PAIR only. For
more information about the PAIR system, see http://pair-direct.uspto.gov. Should you
have questions on access to the Private PAIR system, contact the Electronic Business
Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

        Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist/customer service whose telephone
number is (571) 272-2600.

Marcos Batista
  /M. B./
  02/21/2008

/LUN-YI LAO/
Supervisory Patent Examiner, Art Unit 4134